

VISIT...

LANZAROTE
Caliente.COM

Suggested levels for Guided Reading, DRA™, Lexile®, and Reading Recovery™ are provided in the Pearson Scott Foresman Leveling Guide.

Social Studies

Social Studies

Genre	Comprehension Skills and Strategy	Text Features
Expository nonfiction	• Compare and Contrast • Draw Conclusions • Visualize	• Captions • Glossary • Map • Sidebars

Scott Foresman Reading Street 4.5.2



scottforesman.com



Meet the Maya

by Adam McClellan





Meet the Maya



by Adam McClellan



Editorial Offices: Glenview, Illinois • Parsippany, New Jersey • New York, New York
Sales Offices: Needham, Massachusetts • Duluth, Georgia • Glenview, Illinois
Coppell, Texas • Ontario, California • Mesa, Arizona

Every effort has been made to secure permission and provide appropriate credit for photographic material. The publisher deeply regrets any omission and pledges to correct errors called to its attention in subsequent editions.

Unless otherwise acknowledged, all photographs are the property of Scott Foresman, a division of Pearson Education.

Photo locators denoted as follows: Top (T), Center (C), Bottom (B), Left (L), Right (R), Background (Bkgd)

Opener Digital Vision; 1 ©Charles & Josette Lenars/Corbis; 3 ©Royalty-Free/Corbis; 5 ©José Fuste Raga/zefa/Corbis; 6 (T) Digital Vision; 6 (B) Sandro Vannini/ Corbis; 7 ©Yann Arthus-Bertrand/Corbis; 8 ©Historical Picture Archive/Corbis; 9 ©Ric Ergenbright/Corbis; 10 ©Macduff Everton/Corbis; 12 (Bkgd) ©Bettmann/Corbis, 12 (Inset) ©Kevin Schafer/Corbis; 14 ©Charles & Josette Lenars/Corbis; 17 ©Danny Lehman/Corbis; 18 ©Macduff Everton/Corbis; 19 ©Michael Freeman/Corbis; 20 ©Charles & Josette Lenars/Corbis; 21 ©ML Sinibaldi/Corbis

ISBN: 0-328-13477-5

Copyright © Pearson Education, Inc.

All Rights Reserved. Printed in the United States of America. This publication is protected by Copyright, and permission should be obtained from the publisher prior to any prohibited reproduction, storage in a retrieval system, or transmission in any form by any means, electronic, mechanical, photocopying, recording, or likewise. For information regarding permission(s), write to: Permissions Department, Scott Foresman, 1900 East Lake Avenue, Glenview, Illinois 60025.

2 3 4 5 6 7 8 9 10 V0G1 14 13 12 11 10 09 08 07 06 05



Maya King Bird-Jaguar



Long Ago in Central America

By the third and fourth centuries, the once great Roman Empire had begun to decline. On the other side of the world, another civilization was on the rise.

In the jungles and **highlands** of Central America, the Maya people were just beginning their golden age. Like the Romans, the Maya controlled a vast empire and had their own calendar, writing, and mathematics systems.





The Maya lived in a large area ranging from Central America into southern Mexico. The area is known as **Mesoamerica**. Ancient Maya lands are now part of the countries of Mexico, Belize, Guatemala, El Salvador, and Honduras.

Evidence of Maya life in Mesoamerica dates all the way back to 2000 B.C. In their early days, the Maya lived simply; their culture was dependent on small-scale farming.

But by the first century B.C., the Maya culture had developed. It peaked from A.D. 300 to A.D. 900. During that time, the Maya built hundreds of cities out of stone, with glorious temples in their ceremonial centers. The Maya also created their own mathematics system, calendars, and system for understanding the stars.



Ruins of Maya temple in Guatemala



The World of the Maya

How do we know about the Maya? Like the ancient Romans and Greeks, the Maya left behind remarkable examples of their life and culture. From their art, writing, and architecture, we can tell that the Maya were an amazing civilization.

The ancient Maya lived in three main regions of Mesoamerica. In the north, there was dry, scrubby land, with soil that was not particularly arable, or good for farming. In the south, bordering the Pacific Ocean, there were high mountains with soil that was rich and good for farming. In the eastern and central regions there was a tropical rain forest. This was the heart of Maya civilization.





Maya pyramid



Egyptian pyramid



Magnificent Temples

At its height, the Maya civilization was the most powerful civilization in its part of the world.

The Maya built large structures out of limestone. The biggest of these were the temple-pyramids, which were usually situated at the center of a city. The largest rising as high as 212 feet, the pyramids were centers for the Maya religion. Traveling Maya also used these temples as landmarks, since their tops rose high above the trees.



Pyramid of Kukulcan



Maya Masterpieces

Today, people flock to the Maya ruins to see these remarkable buildings firsthand. How the Maya built them is still a mystery. Unlike other civilizations, such as that of the ancient Romans, the Maya didn't use pack animals to carry materials and supplies.

The pyramids of ancient Egypt were designed so that their sides rose from base to peak in one smooth line. In contrast, many Maya pyramids are terraced, rising in smaller and smaller levels, much like steps. Up each side was a steep flight of stairs. At the top were altars used for religious ceremonies.

The Maya also built ceremonial platforms, with mythological figures carved into their sides. They built ball courts and tall buildings that we now know were observatories.





The Maya believed that they were created out of corn flour by the gods. Most Maya meals involved corn. *Tortillas* were made from corn meal. Mashed corn wrapped in corn husks made *tamales*. Ground corn mixed with hot water made a drink, *atole*.



Maya Life

The Maya were successful farmers. They grew **maize**, or corn; squash; beans; and peppers. They developed expert farming techniques, including ways to irrigate their crops with fresh water from the mountains. Cities and villages had *cenotes*, or natural freshwater wells.

To farm the dense rain forests, the Maya practiced a method of clearing land called slash and burn, in which they cut and burned all wild plants in the area. They also rotated crops to keep the soil from being drained of all nutrients. And after two years of planting, a field was left alone and uncultivated for ten years.

The Maya also fished and hunted turkey, deer, and armadillo. They picked wild fruit and even enjoyed a form of chocolate.

Yet despite their magnificent temples and sophisticated farming methods, most Maya lived in small, simple houses. These were built with mud walls and thatched roofs supported by poles. A one-room house held a whole family.



A modern mud-and-thatch house in Ecuador





The ruins of an ancient Maya observatory at Chichen Itza, Mexico



Early Astronomers

The Maya had a fascination with, and a curiosity about, the movements of the moon, the stars, the planets, and the sun. They believed the sky had a major influence on life on Earth. In some ways, they were right.

Without computers or telescopes, Maya priests studied **astronomy**. They used simple tools, such as forked sticks placed in the ground, to help them observe the positions of Venus, the sun, the moon, and the constellations as they moved across the background of the sky. Windows or doors might be placed so that sunlight or moonlight would hit them directly, and some buildings were aligned to mark the movement of planets, such as Venus.

The Maya based some religious ceremonies on important events in the solar year, such as the spring and fall equinoxes (when day and night are the same length). In addition, the Maya created not one, but three, entire calendars based on their understanding of the sky.





The Maya Calendars

The Maya used their three different calendars at the same time. The 260-day *Tzolkin* (divine) calendar was used in the Maya religion. In everyday life, or civil life, the Maya followed the *Haab* calendar.

Maya astronomers tracked the sun's position and discovered that a year was a bit more than 365 days. The Haab divided that year into 18 months of 20 days each, followed by a five-day period at the end of the year. This end period, the *Uayeb*, was considered a time of bad luck.

The third Maya calendar is known as the Long Count. Like the *Tzolkin*, the Long Count was used in Maya religion. It was used to count the time that had passed from the start of the Maya era. According to the Long Count, the Maya era began in 3114 B.C.

The basic unit of the Long Count was the *kin* (day). A Long Count date was a complicated series that included five different units of time.



From Kin to Baktun

The Long Count calendar divided time into five different units:

- *kin* (one day)
- *uinal* (20 kin)
- *tun* (18 uinal—or about one year)
- *katun* (20 tun—about 20 years)
- *baktun* (20 katun—just under 400 years)



20 x 18 + 5?

Multiply 20 days by 18 months and add five more days. What do you get? 365. That's the same number of days as in a standard calendar year. (Our year is divided into 12 months, however.) The Maya valued accuracy. They calculated that a year was 365.242036 days long.





Maya writing looked like pictures, but every picture had a meaning.



The Mystery of Maya Writing

We know a lot about the Maya because they invented their own system of writing.

Most Maya didn't know how to read and write. Instead, the Maya rulers and priests kept this knowledge to themselves. Because of this, most of the surviving Maya writing is about government or religion.

Maya writing looks like pictures or symbols on a page. These symbols are called **glyphs**. Like Egyptian hieroglyphs, which are also pictures, many of the Maya glyphs are drawings of objects from the Maya world. Some glyphs are harder to understand than others.

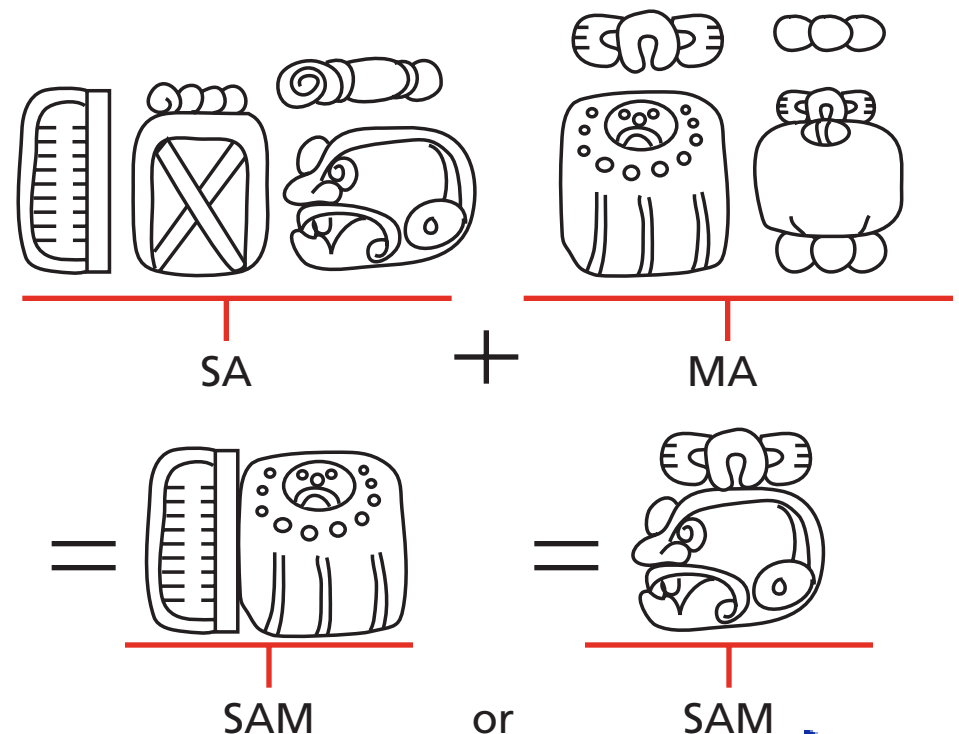


Reading Glyphs

Sometimes a single glyph stands for a whole word. There are 600 of these single glyphs called logograms. Another set of 150 glyphs called **syllabograms** stands for the different syllables of the Maya language.

What does Maya writing look like? If you were using syllabograms to make a word, you might organize them into one block. These shapes would be stacked on top of one another or placed side by side. To read them, you would start at the top left and work down to the bottom right.

In the 1950s, researchers began unraveling the mystery of Maya writing. Today, we know the meaning of more than three-fourths of all glyphs!





Ready, Set, Count!

The Maya counting system was so simple that most could learn to use it. All Maya numbers are written using just three basic symbols. A dot stands for the number one. When there are five dots, they become a line. That line stands for five. You could write out any number from one to twenty by placing bars and dots on top of one another. Look at the example below:

• •	=2
—	=5
—	=5
TOTAL 12	Add them all together and what do you have?

Maya numbers differ from ours in two important ways. First, the Maya wrote their numbers from top to bottom instead of from left to right. Second, the Maya based their system on the number 20 instead of on the number 10.

20s place	• • (20)+(20)	40	
		+	
1s place	• (1)+(5)	6	
		—	
		46	Add them all together! 20 + 20 +1 +5. You get 46!

The Maya knew the value of zero. Think of our own system. Without zero, we wouldn't be able to tell the difference between 20,004 and 24! The Maya zero is a shell symbol.



The Maya abandoned their great cities, but they left behind many great monuments.



For hundreds of years Maya warriors in rival cities fought small battles. At first, **civilians** were left out of the fighting. By the year A.D. 700, all that changed, and civilians had to fight too. Worse, the fighting became more violent, and the Maya began to destroy one another's cities. It took a hundred and fifty years for the fighting to cease. When it finally did, nine-tenths of the Maya population was gone.

The golden age of the Maya ran from A.D. 300 to A.D. 900. But then, it ended abruptly. Archaeologists have found evidence that suggests the Maya simply abandoned their great cities.





The Mystery of the Maya

How could such an amazing people simply leave their cities? There isn't one simple answer.

Some researchers think the Maya might have disappeared from their cities because of overcrowding. The Maya lived in the rain forest, which is a fragile place. As more and more of the rain forests were destroyed, the Maya would have found it harder to live and farm. In fact, researchers have found Maya skeletons that show signs of malnutrition.

The weather is another thing that may have hurt the Maya. Scientists have found that the years from A.D. 800 to A.D. 1000 were the driest in eight thousand years! There might have been a terrible drought, which could have dried up the Maya's water supply in the cities' **reservoirs**.



The Maya might have left their cities when water became scarce in a series of droughts.



A Spanish conqueror stands on the heads of two Maya.



Spanish Rule of the Maya

In the early 1500s, the Spanish arrived, looking for new lands to rule. The Maya fought hard against the Spanish, but the Spanish soldiers were too well armed for them. In addition, the Maya weren't unified—instead of having one strong government to bring them together, they had just little independent city-states.

Eventually, Spain conquered the Maya. The Spanish brought with them new diseases such as measles and smallpox, which quickly overtook the Maya. Within the first hundred years of Spanish rule, nearly ninety percent of the Maya died.





Young Maya girls today dress much the way they did hundreds of years ago.



The Maya Today

The Maya people and their culture are still thriving today. In fact, there are about six million Maya living in Mexico and Central America. The Maya language lives on too. Different regions have developed their own **dialects**; in fact, there are now thirty-one different Maya languages!

The Maya live in a modern world, but they still hold on to many of their ancient beliefs. Some Maya are even learning their ancient writing system. In some villages, “day-keepers” follow the days of the original Maya calendar.

People from all over the world are fascinated by the amazing Maya and come to visit their incredible ancient cities. Perhaps, one day, you will too!



This woman is photographing an incredible Maya ruin.





Now Try This

Say It in Glyphs

Do you ever get tired of writing your words in plain old letters? Well, who says there's no other way to do it? Try taking a page from the Maya book!

The Maya writing system included a set of syllabograms, each of which represented a single syllable in the Maya language. Now it's your turn to try creating syllabograms for English.



Here's How To Do It!

1. Create a list of six English words that have more than one syllable; for example: *rooster*, *elephant*, *sundae*.
2. Break the words down into syllables. For this exercise, you don't need to use a dictionary—just listen to how the words sound to you.
3. For each syllable, create a picture, or glyph, that represents the sound the syllable makes. Write each glyph next to its syllable so that you have a translation key.
4. Rewrite your original six words using your syllabograms. Then try using the syllables to make other English words.
5. Trade your words and your translation key with a classmate. See if you can decipher each other's writing.





Glossary

astronomy *n.* the study of outer space.

civilians *n.* people who are not soldiers.

glyphs *n.* written or carved symbols.

dialects *n.* regional variations of a language, distinguished by pronunciation, grammar, or vocabulary.

highlands *n.* hilly or mountainous areas.

maize *n.* the corn plant or the grain it produces.

Mesoamerica *n.* an area that includes what is today southern Mexico and the western part of Central America.

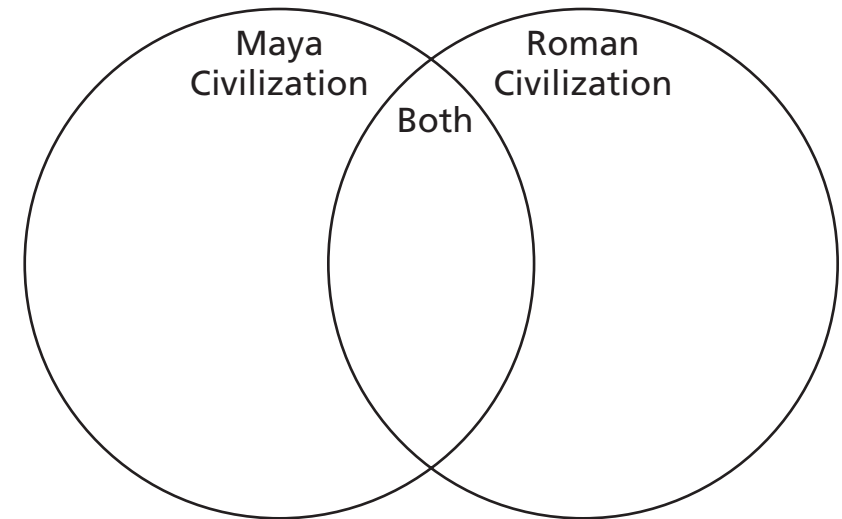
reservoirs *n.* places for storing large amounts of water.

syllabograms *n.* written or printed symbols that stand for single syllables.



Reader Response

1. How were the Maya and Roman civilizations similar? How were they different? Make a Venn diagram like the one below to show their likenesses and differences.



2. On page 11, what words does the author use to help the reader visualize how early astronomers studied the planets?
3. The word *astronomy* contains the combining form *astro-* which means “stars” or “space.” Make a list of other words that contain this combining form. Explain how each relates to stars or space.
4. Review the headings used to organize the book. Do they present the story of the Maya in chronological order or by topic? Explain your answer.

